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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/879,034	06/13/2001	Tomihisa Naito	37872/0004	3566
26633	7590	12/16/2003	EXAMINER	
HELLER EHRMAN WHITE & MCAULIFFE LLP 1666 K STREET,NW SUITE 300 WASHINGTON, DC 20006			KIM, CHRISTOPHER S	
			ART UNIT	PAPER NUMBER
			3752	

DATE MAILED: 12/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/879,034

Applicant(s)

NAITO, TOMIHISA

Examiner

Christopher S. Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. Amendment filed September 24, 2003 is acknowledged.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 2-6 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 recites "0.8 mm, 0.5 mm, and 0.2 mm, respectively" in line 13. It is uncertain what dimension/parameter is being defined, i.e., radius, diameter, thickness, spacing, etc. This Office action considers the recitation to define the diameter of the holes as interpreted in light of the specification.

Claim Rejections - 35 USC § 103

5. Claims 2-5 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dixon (4,508,138) in view of Blair (3,853,146).

Dixon discloses an atomizing apparatus comprising: an outer cylinder 73, 93; an outlet 82; an inlet 71; a chamber 72; an inner cylinder 74, 79.

Dixon differs from the claimed invention in the hole diameters. Blair teaches three groups of holes 20, 21, 22 having varying diameters. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided three groups of holes having diameters of 0.8 mm, 0.5 mm, and 0.2 mm to vary the delivery of the fluid (Blair, column 2, line 35).

Applicant's disclosure fails to provide any criticality in the hole diameters. Rather, the disclosure merely recites the diameter size as examples. See applicant's specification, page 4, lines 1-6.

6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dixon (4,508,138) in view of Benton (329,881).

Dixon discloses an atomizing apparatus comprising: an outer cylinder 73, 93; an outlet 82; an inlet 71; a chamber 72; an inner cylinder 74, 79.

Dixon discloses the limitations of the claimed invention with the exception of the water passage. Benton teaches a water passage d4. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided a water passage in the device of Dixon as taught by Benton to thaw fluid.

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Dixon (4,508,138) in view of Young et al. (6,012,646).

Dixon discloses an atomizing apparatus comprising: an outer cylinder 73, 93; an outlet 82; an inlet 71; a chamber 72; an inner cylinder 74, 79.

Dixon discloses the limitations of the claimed invention with the exception of the conduit passage. Young et al. teaches a conduit passage (un-numbered, passage showing check valve) and a material supply port 24. It would have been obvious to a person having ordinary skill in the art at the time of the invention to have provided a conduit passage in the device of Dixon as taught by Young et al. to prevent over pressurization.

Response to Arguments

8. Applicant's arguments with respect to claims 2-5 and 9 have been considered but are moot in view of the new ground(s) of rejection.

9. Applicant's arguments filed September 24, 2003 have been fully considered but they are not persuasive.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, motivation is found in Benton, page 1, lines 9-15, "object of my invention is to produce the means whereby a hydrant or water pipe may be instantly thawed out." (underline added) Additionally, Young et al. recites, in column 3, lines 19-20, "Excess fuel flows past the

poppet 64 and back to the inlet side of the pump through conduit 54.” Young provides the motivation to return excess flow.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher S. Kim whose telephone number is (703) 308-8336. The examiner can normally be reached on Monday - Thursday, 6:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Y. Mar can be reached on (703) 308-2087. The fax phone numbers

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for the organization where this application or proceeding is assigned are (703) 872-9302 for regular communications and (703) 872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.



Christopher S. Kim
Primary Examiner
Art Unit 3752

CK
December 14, 2003